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MADAME VICTOR VERDIER.



JUNE, 1886.

THIS MONTH OF ROSES is a most fitting time to present to the readers of the MAGAZINE a plate, the artistic merits of which may very properly be compared to the excellent qualities of the variety of Rose represented.

Madame Victor Verdier was first sent out in 1863, being a seedling variety raised by M. VERDIER, the famous French originator of Roses. It has stood the test of time, and is now regarded as one of the choicest of the Hybrid Remontant varieties. It is described as a large full flower, of globular form, carmine-crimson in color, and very fragrant. The late HENRY B. ELLWANGER, author of *The Rose*, placed this variety in three of his select collections for special purposes, viz.: "For massing," "highly scented" varieties, and "the most beautiful." This is very high honor to accord to any variety, but in this case it is well deserved.

The same authority gives a selected list of the "most hardy" varieties, naming twenty-two Hybrid Perpetuals, and in his list of "highly scented," are seventeen of this class of Roses. In these two collections five varieties are common in both, and these are, Baronne Prévost, General Jacqueminot, Madame Victor Verdier, Maurice Bernardin and Rev. J. B. Camm, and the three last named are in his collection of "the most beautiful." Also, Baronne Prevost and Rev. J. B. Camm

stand in his list of free blooming autumnal sorts. Here, then, are five varieties that are eminently superior.

At the last meeting of the Western New York Horticultural Society, Mr. GEORGE ELLWANGER presented the following list as the best dozen hardy Hybrid Perpetual Roses for the average cultivator: Alfred Colomb, Anne de Diesbach, Baron de Bonstetten, Baroness Rothschild, Eugenie Verdier, Fisher Holmes, John Hopper, Marshall P. Wilder, Paul Neyron, Madame Gabriel Luizet, General Jacqueminot, François Michelon and Caroline de Sansal.

The question of hardiness in relation to the Hybrid Perpetual or Remontant Roses we regard as of minor importance, as all of them are sufficiently hardy to stand our severest winters with proper protection, and any of them is liable to injury if unprotected. Undoubtedly Mr. ELLWANGER holds much the same opinion, as, in offering the above list, he made the following remarks: "The varieties in this list are hardy in this climate, but all Roses are better for a light covering. I hill up the earth about six inches, or cover them about one foot with leaves or straw. Evergreen branches are also good for protection."

Taking Mr. ELLWANGER's list, as that of varieties of many excellencies, and adding to it those, which it does not contain, of

the five varieties previously noticed, and also eight others of very superior qualities, we formulate the following list of of twenty-four kinds which unquestionably occupy the first rank of all the many hundreds of Hybrid Perpetuals now in cultivation. Such of the letters A. B. H. S. as are appropriate are appended to each name to designate the qualities in which they excel; A. indicating autumnal free blooming; B. the most beautiful; H. most hardy, and S. highly scented.

Alfred Colomb, A. B. H. S., carmine crimson

Anne de Diesbach, A. H., carmine.

Baron de Bonstetten, B. H., velvety maroon shaded with deep crimson.

Baroness Rothschild, A. B. H., pale pink.

Baronne Prévost, A. H. S., pure rose color.

Caroline de Sansal, A. H., pale pink or flesh color.

Comtesse de Sérenye, A. B. H., silvery pink.

Eugénie Verdier, A. B. H., rose color and silvery pink.

Fisher Holmes, B. H. S., bright crimson.

François Michelon, A. H., deep rose with lilac tinge.

General Jacqueminot, H. S., brilliant crimson.

Louis Van Houtte, A. B. S., crimson maroon.

Mabel Morrison, A. B. H., white.

Madame Gabriel Luizet, A. H., pink.

Madame Victor Verdier, B. S., carmine crimson.

Marie Baumann, A. B. S., crimson vermillion.

Marie Rady, B. S., vermillion shaded with crimson.

Marguerite de St. Amande, A. B. H., bright rose.

Marshall P. Wilder, A. B. H., cherry carmine.

Maurice Bernardin, B. H. S., bright crimson.

Paul Neyron, A. B. H., deep rose.

Pierre Notting, B. S., deep maroon and bright crimson.

Rev. J. B. Camm, A. B. H. S., carmine rose.

Victor Verdier, A. B., bright rose with carmine center.

La France is omitted from this collection only because it is not a true Hybrid Perpetual, but a Hybrid Tea. It is,

nevertheless, a most beautiful, fragrant and free-flowering variety, and excels as an autumnal bloomer. Though it is not considered quite hardy, it will stand the winter well with the amount of protection that is best even for the Hybrid Perpetuals. Adding this to the number and the collection of twenty-five embraces the most distinct and desirable varieties for open air garden culture at the North.

There would be no particular value to the general reader of a descriptive account of the new varieties of Hybrid Perpetuals that have been put on the market for sale for the first time this spring, for in the first place they would be practically unobtainable by them, and secondly, when they have been sufficiently propagated to be offered to the retail purchaser, perhaps not one in ten of them would be good enough to be desirable when compared with the best older varieties, or those in the list above mentioned.

Much interest has been manifested, particularly among professional florists, the past winter and spring, in the appearance of two varieties of Roses thought to be especially desirable for forcing for cut blooms. These are Her Majesty and American Beauty. Her Majesty is a seedling produced by Mr. HENRY BENNETT, of Stafford, England, and disseminated in this country by CHARLES F. EVANS, of Philadelphia, who also brought to this country and sent out the bright crimson Hybrid Tea, William Francis Bennett, from the same English originator. Her Majesty appears to be satisfactory so far to those who have tried it as a winter blooming variety, and will probably prove valuable for that purpose, together with William Francis Bennett. What the character of these varieties will prove to be in open air culture in this climate is yet unknown. Her Majesty is described as a flower of immense size, in this respect rivaling Paul Neyron; color a delicate rose or satiny pink; very fragrant. The plant is said to be a strong grower, with beautiful foliage, and quite hardy, but this last statement, in the absence of proof, has little or no value.

American Beauty, sent out for the first time, this spring, is referred to by some as a Hybrid Perpetual, but its characteristics do not warrant this classification. The fact is, that its parentage is unknown. It is a chance seedling that came up a

few years since in the garden of Hon. GEORGE BANCROFT, at Washington, D. C., and only within a short time has its valuable qualities become known. The flower is described as large and double, reddish crimson in color, and with a rich fragrance. The plant is vigorous in growth and a free bloomer, and it is claimed that it survived exposure in the open field last winter, with the mercury at 20° below zero. It is, therefore, promising for open air culture. As a forcing variety it has already proved valuable.

A year or two since considerable interest was aroused on the announcement by the French raiser, GUILLOT, of a yellow Hybrid Perpetual, named Gloire Lyonnaise. It is a Hybrid Tea, half double or full, creamy white, with a light yellowish tint at the center. Its particular value has not yet been determined.

The Polyantha Roses are everywhere winning honors for themselves. All through the Northern States they have stood the winter with little or no protection; their low growth and free blooming habit make them highly valuable for bedding, notwithstanding their small size, and since their entire hardiness is established, they will be in demand in great quantities. As window plants they are excellent. Up to this time nine varieties of them have appeared

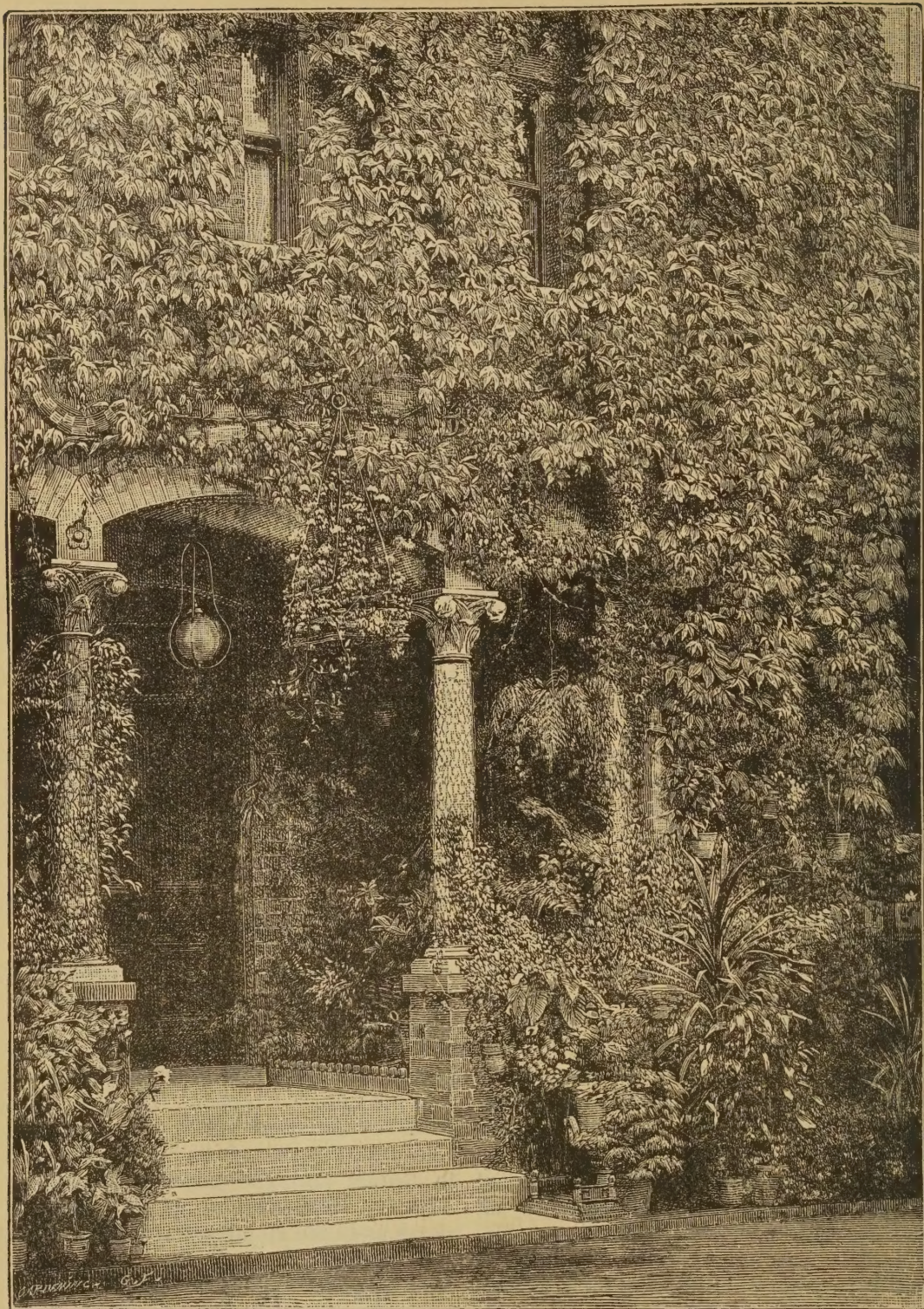
in the trade; these are, Anne Maria de Montravel, flowers pure white, very double, regularly imbricated, very fragrant and borne in large clusters. Jeanne Drivon, very double, fragrant, white with faint tinge of crimson. Little Gem, flowers of perfect form, very double, creamy white and sometimes tinged with rose. Little White Pet, flowers light pink or blush on opening, but changing to white, about an inch and a half in diameter; a vigorous grower and abundant bloomer. Mademoiselle Cecille Bruner, the largest flowering variety of this class; salmon pink, deeper colored at the center, very fragrant and blooms in clusters. Mignonette, flowers small, rose color changing to blush, blooms continually and in large clusters. Miniature, this is the smallest of these very small Roses, about the size of a double Violet; pure white and very fragrant. Paquerette, very dwarf and branching, flowers full, pure white. Perle d'Or, very double, fragrant, reddish salmon color.

These varieties are hybrids that have been raised in France by crossing the Japan species, Rosa polyantha, with some of the Tea and other cultivated sorts. It is probable that this class will yet be greatly extended, and variously modified by successive hybridizing and crossing.

PLANT DECORATION OF PORCHES AND VERANDAS.

Beautiful effects can be produced by the judicious planting and training of hardy climbing plants about the house, and with especial reference to the ornamentation of entrance porches and verandas, and this feature of ornamental gardening should receive more general attention than is given to it. It can be done without the aid of the professional gardener, though we should, by all means, have his assistance, if possible, for the trained mind and the skilled hand are as capable of exhibiting their superiority in garden work as in any other art. But, even without such assistance, one who appreciates beauty and loves nature cannot fail with such materials as thrifty-growing and gracefully climbing and trailing plants, to produce effects that are pleasing to the eye. The present illustration has been reproduced from the foreign journal, *Gardening Il-*

lustrated. Wire netting is provided for the support of the climbers. About the porch and pillars the principal plant in this case is the Ivy, and this enlivened by the intermingling of Clematis Jackmanni and the Canary Creeper. The face of the wall is covered with our native Virginia Creeper; this plant is as highly esteemed in Britain and Europe as it is with us. The Ivy succeeds with us only in some portions of the country, but we have as a substitute the Japan Creeper, Ampelopsis Veitchii; the Virginia Creeper is at home everywhere. Objections are sometimes made to the employment of climbing plants on houses and verandas, on the ground that they make the house damp; but this is not so, on the contrary, they protect the house from dampness. Again, one says they shut out the sunlight, but the vines being under absolute control, there is no difficulty in so arranging them as to



VINE COVERED PORCH AND WALL.

allow free access of light through every window. The objections have no force. The principal climbing plants to be employed besides those already named are different varieties of Clematis and Honeysuckles, *Bignonia radicans*, *Celastrus scandens*, *Aristolochia Siphio*, and Pillar and Climbing Roses. When the porch faces the east or north, a great variety of handsome foliage and flowering plants in pots can be massed about its base to advantage; with other exposures the summer sun would too quickly spoil the beauty of the plants.

CORRESPONDENCE.

A JUNE SONG.

A song for June, whose breath is sweet
With blossoms opening at our feet;
Whose voice is heard in brooks that run
Through meadows, glad with song and sun.
Oh, happy, happy June!

The robin in the Apple trees
His nest among the branches sees,
And, bubbling from his silver throat,
What wordless songs of rapture float.

Above the world the firmament
Spreads out the azure of its tent;
How blest are we, whose dwelling is
Beneath so kind a roof as this.

Our hearts are glad, with bird and bee,
For what we feel, and hear, and see;
Life seems a song to sweetest tune,
Oh, would it were forever June.

EBEN E. REXFORD.

THE FAMILY ASPARAGUS BED.

I do not write as an expert on the subject of Asparagus. Indeed, this article would be far longer and more desirable were I to write what I don't know about the vegetable. Still, I grow more experience in my garden than I feel like wasting or leaving to the compost heap, and its just possible it may have a word of interest to those who don't know anything about growing "grass," as the market-men call it.

The first thing I found out was, that Asparagus is the better for cultivation in spring. When we came to our new place where the Asparagus beds were made up with a comfortable dressing six inches deep, over winter, there was a lively discussion between two of us most interested whether to dig them or let them alone. One of them could be trusted to run a Wheat farm to good profit, but never happened to have the care of "grass," and my knowledge might have held everything else, but it failed on this particular point. We divided on the question; the young master of the place pursuing the let alone system, I, taking the view that it is best to do something, had three beds vigorously forked over, till it was a wonder the plants were not lifted by the roots. Happily they were set deep enough, and the stirring was done early enough to be a benefit. We had Asparagus of excellent flavor for the neighborhood. How much the liberal dressing of salt had to do with the crop I can't say, but "grass" of better flavor I never tasted. The second year we used plenty of salt, but less dressing. The re-

sult was a crop of high flavor, but less abundant. Third year, for some reason, the beds were not well attended to before winter, had no cultivation and but a strawy covering. Somebody recommended nitrate of potash as an application. The intelligent man who sold farmers' supplies suggested muriate of potash instead. I took both, dusted the beds with the muriate freely, and spoiled the Strawberries with the nitrate in solution. It was an expensive lesson on Strawberries, but the Asparagus made it up. Mark that the muriate was not put on the beds till the last week of grace in spring, and then as an idle experiment, following my motto, "do something."

The Asparagus came up thick as one's thumb, delicate in hue and tender as you please. If I had thought to start it as a new mammoth variety, it would have been enterprising, but the idea never happened to my mind till I was reading some of the spring's catalogues. If any one wants big Asparagus, muriate of potash will raise it. But the truth must be told, the big "grass" had no flavor more than that on the lawn, and, after the first large shoots, very soon came up for seed. *Hæc fabula docet*, putting this and that together, the way to raise fine Asparagus is to use compost with muriate of potash. And I freely put down what my few and forty years of experience have convinced me, that finely flavored fruit or vegetables need not be expected without what gardeners call "sweet old dressing," *i. e.* rich, well decomposed manure, both animal and vegetable, and the nitrates and

mineral salts will only give size without richness. The raw, strawy stuff people fling on their gardens and the vile smelling commercial fertilizers do not yield well flavored root or grain crops. I am tempted to think, sometimes, that the superphosphate is answerable for the shabby Potatoes common, and think it is best applied in the fall, when it has a chance to change and sweeten before the plants take it up. Whether nature has any lesson for us that the offensive stage of all decay should be past before it is fit for plant food and our food afterward, I cannot pretend to say in presence of so many wiser heads. Still, as an entirely safe thing, the compost heap on this seven by nine farm will have a sharp eye upon it to see that the boys don't spoil any more garden stuff by loading it with crude fertilizer. The Chinese, who have not much to be taught about culture, will not use concentrated manures under one year old, and the flowers grown from their directions surpass everything for size and fragrance, as their vegetables do for size and delicacy of flavor.

The final point impressed on my mind is that Asparagus ground can hardly be too light and open. Old hot-bed stuff and plenty of coarse sand are best to plant in, and there is sense in the

French method, which leaves the winter dressing on the bed to decay, forking it in, not off, the ground.

With a muriate of potash dressing the fall before, one might reasonably look for Asparagus the size of a walking stick, while to penetrate a bed which has been well trodden by the children after boughs in summer, the "grass" needs to be the consistency of cane with plenty of silex in its fibre. One caution—keep young folks away from the Asparagus bed. Persons should be of full age to know enough not to step on the beds any more than on those covered with white Marseilles in doors; also to be wise enough not to cut branches for bouquets and fly roosts. Asparagus is too filmy and weak to be pretty in vases with any other plant unless it is large Ferns. Carrot tops are much finer, and cutting them does not lessen your next year's crop of Asparagus. You must take your choice, for what you cut in summer you can't have next spring. As real estate agents advertise "a good Asparagus bed," with other attractions, adding to the value of country or village places, it is worth while to pay some attention to keep this investment from running out. If one wants to make money from the garden, forced Asparagus pays better than any other crop, with less trouble.

SUSAN POWER.

THROUGH JAMAICA.

St. Jago de la Vega or Spanish Town, by rail, is a distance of thirteen miles from Kingston. This ancient town is situated near the banks of the Rio Cobre, about five miles from Passage Fort and Port Henderson, near the sea or harbor of Kingston; and from the time of the conquest, with the exception of one period, has been, till lately, the capital of Jamaica; it owes its name to Louis, the eldest son of Christopher Columbus, who was created Marquis of La Vega; it formerly contained a fort, a monastery, a convent, and a theater, but no external remains of either are now to be found; since the removal of the seat of government to Kingston, it has but few objects of interest to the stranger. The parish church, or cathedral, contains some monuments and accessories which may form a study for the archæologist. The Irrigation Works are also worthy of a visit. The Govern-

ment or King's house, which became vacant on the removal of the government, is at present occupied by a government training college and a theological seminary. Twelve miles further, by rail, brings us to Old Harbor, a seaport of no particular interest to the tourists, so we proceed to Porus, a small village at the foot of the Manchester hills; here the railway terminates, and a drive of ten miles will bring us to the town of Mandeville, which is beautifully situated on a flat or table land, at an elevation of 2,150 feet above the level of the sea, and is especially adapted by nature to those persons who are seeking change for health or recreation. The tourist would be well repaid by taking a short drive of eight miles out of the village, which would bring him to the top of Spur Tree Hill; and there he would witness one of the grandest sights in tropical scenery;



JAMAICA CACTUS, OR CEREUS, IN BOTANIC GARDENS, KINGSTON, JAMAICA.

spread out before him are the plains of St. Elizabeth, a vast panorama; there he would behold those far-famed grazing pens, where some of the best racing studs are bred. These grand park properties, with their undulating slopes and fine old trees, present most picturesque views and form one of the most beautiful landscapes in the island, invariably entrancing the beholder in admiration and wonder. There are also many very pleasant walks and drives in the vicinity of the town. A mail coach, accommodating four passengers, runs to and from Kingston tri-weekly. From this place we proceed by conveyance to Santa Cruz. The Santa Cruz mountains form a range standing unconnectedly by itself, extending its length from north to south; the highest point is Potsdam, about 2,500 feet above sea level, and is said to be the healthiest and most salubrious spot for invalids in Jamaica. There are a few natural curiosities in the vicinity, such as the Y. S. Falls, the Lover's Leap and the Peru Cave, and scenery quite sufficient to engage the attention of artists for many weeks together. Through Lacovia, we arrive at the Copse estate, in the interior of the parish of Hanover, where is one of the model sugar manufactories of the island, and, also the celebrated grazing

pens of Knockalva, Ramble, Haughton Grove and Shettlewood. The Christmas prize oxen are mostly taken from Knockalva. Montego Bay, the extreme north-eastern town of the island, is blessed with a never-failing spring of the purest water. The parish church here contains many monumental marbles, tablets and mortuary mementos of great taste and cost, bearing evidence of that great store of wealth, that was available in the past. The statue of the Lady of Rose Hill (in Trelawney) is here; tradition says she murdered five husbands, and, finally she was strangled. A most remarkable thing is the vein of the marble at the neck of the statue, it having the appearance of the mark a rope would make in strangulation, and this mark was not visible when the statue was first erected. The serene atmosphere and admirably clean streets, together with a well supplied market, make Montego Bay a pleasant and interesting enough town to spend a week at in "doing Jamaica as a Tourist." The journey from Montego Bay, along the sea coast passing through Falmouth to St. Ann's Bay will be somewhat monotonous. But the traveler will be amply repaid by taking a drive from St. Ann's Bay to an elevated spot, a little beyond Ochio Rio's, which includes the Roaring River



A STREET SCENE, KINGSTON, JAMAICA—ROW OF PALMS AND CACTUS HEDGE.

with its falls, where each turn in every road is worthy of a painter's eye. For the highest enjoyment, the river, however, should serve for one expedition, and the Roaring River and falls for another. The fall on Roaring River is a most glorious and attractive sight. There are also other objects of interest such as the Columbus and Bull Rock Caves, and the Light Hole, and another Cave in the Dry Harbor mountains near by. One special feature on the pen and estate pasture lands is the valuable Pimento tree; thus the beauties of the place are characteristic. There is nothing of the bold grandeur of massive rocks towering upon rocks in their native garb, for the scenes are all more or less gradually receding, and the tree foliage interspersed everywhere takes off every sharp line which might elsewhere appear. It is, on a whole, in harmony, having for the eye its own delectations, soft, pleasing, subdued, undulating upwards to the skyline in the distance, and every here and there are hollows for torrent and river crosses, but only seen by fringes of tree foliage in the landscape, as lines of deeper green than their surroundings possess. From St. Ann's Bay, we again make for the interior, and arrive at the Moneague, a small village at the foot of Mount Diablo, noted for its picturesque scenery and views of singular beauty. A few

miles now will bring us to Ewarton, the terminus of a new branch of railway from Spanish Town; thence passing through the Mount Diablo tunnel, and skirting the dams of the Irrigation Works at the Bog Walk, we soon arrive at Spanish Town, and in an hour's time will have returned to the City of Kingston, gratified beyond expression with a climate and scenery which, though entirely different, are equally pleasing as those of Switzerland and the Tyrol.

A few words in regard to routes and methods of travel may interest intending visitors to our island. The best time for northern travelers to come to Jamaica is early in November. Steamers of the Atlas Line run direct from New York to Kingston, and make the passage in six to six and a half days, with excellent accommodations and fare. On arrival at Kingston take a bus to Mrs. BACQUIE'S private boarding house, or to Myrtle Bank, another private house, or to Park Lodge Hotel, or the Clarendon Hotel. Hotel charges are about two dollars and a half a day. Tram cars traverse the main streets and outskirts of Kingston.

The Port Royal Mountains and Cinchona can only be reached by carriage to Gordon Town, where mountain ponies are hired at eight shillings, two dollars, a day. There are fifty miles of railway from Kingston to Porus, where a mail



THE Y. S. FALLS, JAMAICA.

coach connects for Brooks' Hotel, Mandeville, Spur Tree Hill, Santa Cruz, etc. From Lacovia to Montego Bay the distance must be passed by hired conveyance; from Montego Bay to St. Ann's Bay by mail coach, and in the same manner from St. Ann's Bay to Moneague and

Ewarton, and thence by a short branch of railway to Spanish Town.

The people are kind and hospitable, but one should, if possible, bring a few letters of introduction, which will serve as passports to many acquaintances.

WM. SPECK, *Half Way Tree, Jamaica.*

WATER-PITCHERS, OR SIDE-SADDLE FLOWERS.

The glory of the spring-time savannas of the Carolinas is in their Water-pitchers. The botanical name of this genus of plants is *Sarracenia*, which name, though very suggestive of the habits of the plant, has no reference to the ferocious and sanguinary disciples of Mahomet. The name was given by the French botanist, *TOURNEFORT*, in honor of *SARRAZEN*, a Canadian physician, who first sent specimens of *S. purpurea* to Europe.

In the district around Wilmington, N. C., we find four species of *Sarracenia*, viz.: *S. flava*, popularly called "trumpets," *S. purpurea*, called "Side-saddle flower," *S. variolaris*, the spotted Water-pitcher, and, rarest of all, *S. rubra*, the red Water-pitcher plant. Further south, in South Carolina, we find two additional

species, viz.: *S. Drummondii* and *S. psittacina*.

Sarracena flava is by far the most abundant species, and is so plentiful in many places as to give the prevailing color to the savannas upon which it grows. As is pretty generally known, all of the Water-pitchers are insect catchers. Every one who has eyes and knows how to use them has probably observed the strange fascination which purple colors have for insects. If we break off, close to the root, one of the funnel-shaped tubes of *S. flava*, on inverting it there will flow out a putrid mass of the consistency of pea soup, wherein dragon-flies, ants and moths of various species do duty instead of Peas. Though *Sarracenia* be the name the odor from the tube reminds us of anything but the spices of *Arabia felix*.

An examination of the tube discloses the appliances by which the plant so successfully captures its prey. From the curved rim of the wide-mouthed funnel broad streaks of Tyrian purple extend downward toward the bottom of the tube. These streaks or veins are polished as smooth as glass, and make very slippery pathways even for insects. From the upper portion of the interior surface of the tube exudes a sweetish substance akin to the nectar of flowers. This is the bait that attracts the insects, and the foolish creatures seem utterly unable to resist the seductions of the painted and slippery paths referred to, and following the purple streaks downward they are not long discovering a great change in the character of the nectar, for while that above is wholly innocuous, below it has intoxicating properties, as many botanists think, or, as seems to me the case, it becomes more sticky, and getting into the minute orifices by which the insect breathes, suffocates him. No sooner does the silly fly discover this unlooked for change than he tries to retrace his way, but, though the ingress was easy enough, the egress is, ah! how difficult. Stupefied, or asphyxiated, by the treacherous nectar, he is unable to maintain his

foothold upon the polished surface, and down he tumbles into the pot below.

Thus the complicated arrangements of tubular leaves, purple streaks, innocuous nectar above and poisonous nectar below, together with water secreted by the roots for dissolving the bodies of captured flies, are exceedingly favorable to the destruction of insect life. Any one who effects to doubt the matter can easily examine it for himself.

All of the Water-pitcher plants are half-hardy in any part of the United States, and one species, *S. purpurea* is wholly hardy as far north as Labrador. This latter is, however, the least successful fly-trapper of all the Water-pitcher family. The handsomest and most interesting of them are *S. flava*, *S. variolaris* and *S. psittacina*, all of which are well adapted for fountains, rockeries and ornamental park water. The plants should be grown in shallow pans or boxes. They require but little soil of any kind, and that little should be sphagnum peat with a small quantity of sharp sand. Water must be kept standing about the roots, and the plants should never be exposed to a temperature much below that of a few degrees above the freezing point.

GERALD MCCARTHY.

GARDEN NOTES.

I am fond of testing new fruits, and have just been planting, March 25th, some of the most approved new Grapes, just received. When they come to hand in autumn, or during winter, I usually store them in sand kept slightly damp, and in a cool cellar, and set out early in April, finding very great advantage in being able to plant early. Grape plants like to have a warm bed for their roots. To favor them in this respect I have covered the surface over the roots of those just set with a shingling of pieces of glass, which will do two services—will ward off cold rain, and will admit freely, and help to retain, the warmth of the sunshine. This is not a new expedient, but a very simple one, and I have not seen it mentioned, I believe, in print.

I often use glass jars which have lost their bases, as sometimes happens when they are set while cold upon a hot stove. They make an excellent shelter from wind for a newly set young plant not taller

than themselves, which has started a little in growth of top while the roots are not ready to send up any supplies. A cover of paper held on the top by a piece of a broken pane, will prevent excess of heat when the sun shines out; or a wash on the glass of the jar and only partial covering of the top will serve. Parching, exhausting wind will be kept off, and moist air and general warmth retained. When glass becomes sufficiently cheap, plant glasses shaped something like a wide, high fruit jar without a bottom, the cloches or bell glasses of French gardens, will become very useful aids in our gardens, where the need of them is greater than it is in France, and much greater than in the damp air of England.

Another simple, but useful, means of starting a few cuttings, root-grafts, &c., requiring bottom heat to advance root-growth a little before the tops, has been in practice here several years. They are simply set in sandy mold, with the roots

close to a wall which is kept somewhat warm by a stove close to it inside. While the roots are kept in this genial situation with pieces of glass laid over them to ward off excess of wet and chill, and to allow sun warmth to penetrate to them, the tops are left uncovered, exposed to the cool air. In May the roots will have calloused and new rootlets begin to appear. Then they are carefully taken up, on a mild, damp day, and set out in fine soil in the rows where they are to be grown.

To judge by the many front yards in which one sees shrubs and trees set each by itself all over the grass plats, to the great inconvenience of the mower, the natural and handsome way of growing most things of the kind, in groups or in beds of shrubbery usually backed against the fence, like furniture against the walls of a room, gains place but slowly. Yet it is by far the easiest to plant and care

for, and in every way the most enjoyable, and the plants sheltering each other will look very much better than the often broken or unbalanced, or sickly plants upon the open lawn. There are some plants, however, that show to the best advantage when they have equal room to spread on all sides, like the *Eulalia* grasses, *Hydrangea paniculata*, and others of stately, equally balanced growth.

The plants of the beds of shrubbery should be so arranged as to taper in height from the back or center down to the low edge of the front, and in and near this will be place, in the interstices, for many sorts of herbaceous perennial flowers, the bloom of which will show as much better against the bank of shrubbery foliage as Miss DORA's bright blossom will against the green leaf which she uses to back it in making up her button-hole bouquet for WILL's coat collar.

W., *Tyrone, Pa.*

GRAPES AND PEACHES IN SEVERE CLIMATES.

I will describe, for the readers of the *MAGAZINE*, the method I have practiced in cold climates to raise Grapes and Peaches without the aid of brick walls or glass.

Line out a bed seven feet wide the length that is required. Each plant, Grape or Peach, is to be confined to a space of eight feet by seven; the bed should extend lengthwise, east and west. On the north side of the bed dig out a trench eighteen inches wide and a spade deep; the soil thrown out should be put on the bed to give it a good incline toward the south. After the bed is made, smooth it and provide it with a frame by nailing together four boards. The boards should be nine inches wide, and the two sides eight feet long, the other two seven feet. Take some fine wire and stretch it length ways of the frame, six inches apart; that will make a trellis to tie the vines to when placed in its proper position on the bed.

After the bed and trellis are ready place the trellis on the bed, and that will give the correct idea of the intended training, that is, instead of training the vines and Peaches upright, they are to be trained on a flat surface, only nine inches from the ground. In planting, each plant must be set inside of the bed on the south

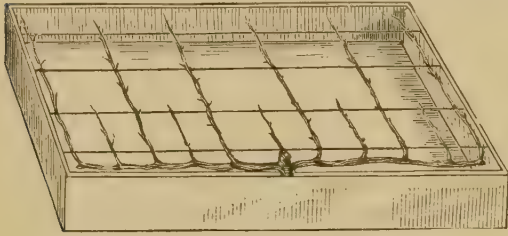
side, and central to the front board, as represented in the diagrams.

Training Grapes is a very easy affair, if a proper system is adopted at first, not otherwise; the one I prefer is called the single rod system, and I will endeavor to describe it, as success depends upon close adherence to it. Suppose that the frame or trellis is in place on the bed, and the planting of the vines is about to commence; take the plant and make an opening by digging out a sufficient space to receive the roots, near the frame board, inside of the bed, say three inches clear of the board, and central, that will give four feet on each side of the plant. The two first shoots are to be tied on the first wire, east and west; these two shoots are always to be tied there to form a base for supplying bearing shoots to start from.

All shoots required for bearing fruit must be trained across the trellis from the front to the back, and when they reach the back line the tops of the shoots must be pinched off. Suppose six shoots, or canes, are bearing fruit, six other canes that have started from the base must be trained between those bearing canes, to bear fruit the following season, and those that are bearing are to be cut back in the fall to the base or arms, leav-

ing a few good eyes for the succession of bearing canes, as before described.

To further explain pinching the tops of young wood, I will take a bearing cane as a sample for all the rest. A good stout cane will produce two to three branches from each eye. When a shoot has two or three branches well set pinch the top off, leaving one eye above the last, or top bunch; that eye, so left, will make another shoot, which is called a lateral. When this has attained four or five inches in length, pinch it, leaving one



VINE TRAINED TO HORIZONTAL TRELLIS.

eye on the lateral, and that will start again; so keep pinching to the end of the season. The effect of pinching the tops is that it checks the growth of wood, and thus are strengthened the fruit buds for the ensuing year. Some discretion must be used; a strong cane can be allowed to grow the full length of seven feet, a weaker cane only half that length. All young wood that is not required cut completely out, but never cut any old wood in summer. I have often seen shoots ten feet or more, that have been left unnoticed and growing at random, with not one single fruit bud on the whole length.

Winter protection consists in releasing all the shoots from the vines in November, pruning and pegging them down close to the ground behind the front board. Cover the whole with four inches of soil, not manure, and when the ground is hard frozen cover them again with any kind of litter, to keep the ground from thawing. Keep the vine covered until the first week in May, and then release the vine and tie the arms and canes to the wires before the buds are too far advanced.

The best varieties to plant are those that will bear close pruning, such as Delaware, Concord, Niagara, &c.

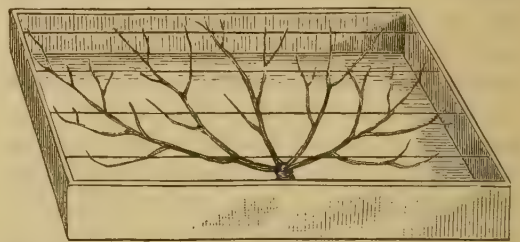
Peach trees can be trained similarly to Grape vines. Like the Grape vines, they bear fruit only on young wood. Peaches are trained in fan-shape. The young wood

should be tied to the wires in summer, and all rank young wood cut out. I do not recommend shortening young Peach wood in summer; that can be left for spring pruning. Over-crowding must be avoided, and be careful not to get all the bearing branches on the top, but encourage the growth of young wood near the foot of the tree. Wash all the old wood every spring with a composition made of clay, sulphur, soot and water, and well mixed, more soot than sulphur is to be used. Washing with this mixture will protect the trees from insects.

For winter protection, cover the trees late in the fall with Rye straw. Spread evenly over every part, with the branches remaining tied to the wires—a sort of light thatching made fast with twine to the wires on the trellis. The first week in May is soon enough to uncover.

Spring pruning consists in thinning out the shoots, if too thick, and shortening some others.

As nearly all the Peach trees are killed by winter frosts in Canada, and as most of the best varieties of Grapes which are not killed in winter are spoiled by pruning or no pruning, I have brought my last sixty years' experience with them in England and in America just to this one idea: Peaches and Grapes can be raised by the method that has been described, as far north as the latitude of Quebec, and also in the south of England, and



PEACH TREE TRAINED FAN-SHAPE TO HORIZONTAL TRELLIS.

Ireland and Wales, without the aid of brick walls or glass houses, and with less trouble and double the crops on an average. Thousands of people plant Grapes and Peaches every year; they plant them and generally that is the last of them.

My present object is to show how to train and preserve the stocks from being winter killed, and thus to encourage the growth of these most excellent of all fruits. What sight can be more charm-

ing than to look down a trained bed of Peaches, one hundred feet long, with their golden fruit peeping out from the green leaves, and how pleasant and interesting to the cultivator. He has to encourage the growth of the present season, and tie to the wires all fruit-bearing shoots, and cut out all the superfluous wood. Summer pruning of Grapes and

Peaches, when confined to the young, growing wood, is the best practice, and close study will always ensure success.

The two principal advantages to be gained by training to a flat trellis are these: 1st, Every branch and shoot is within easy reach to be operated upon; 2d, The plants can be efficiently protected in winter. J. PHILLIPS, *London, Ont.*

FUCHSIAS.

I plodded along in my early years of plant culture for a long time with about as poor a specimen of a lanky, "leggy" Fuchsia as one would see in the most neglectful plant cultivator's collection. I know now that it was a plant of the variety *F. speciosa*. The poor patient thing lived, but what a life it was. It would occasionally "spunk up" a little and put out one tiny little blossom, then it would droop its poor head as if ashamed of it, and say farewell for a time; but it wouldn't die, no, there would have been some satisfaction if it had, but it just stayed on, year after year, the same miserable Fuchsia. After a time I grew ashamed of it. I concluded if other people could raise Fuchsias finely I would try to raise them well. I took a cutting of that same Fuchsia, procured some small ones of a florist, and after rooting my *F. speciosa*, I potted all in some well enriched soil. I started them into what I would now call rank, rich growth. I pinched them out well, as what I was after was plenty of side branches for bloom to come on, if they ever intended to bloom at all I wanted plenty of it. About this time I read, "keep Fuchsias making new wood to bloom well." There was the secret. I did this to the very

best of my ability by giving stimulants once a week regularly, and keeping them from getting pot-bound. I repotted as soon as I found they were getting cramped at the roots. I have been rewarded handsomely. Now these graceful flowers are my special favorites, and hundreds of the beautiful "eardrops" nod and beckon to me all through their season of bloom. I only try to have them in summer. I put them to rest in winter, and dream of what joys they will bring me when the spring-time comes.

I bed them out in a shady place in summer, water well and keep the foliage clean. I have twenty varieties now, and yet I greedily hunger for more. The old days of trouble with them are gone, and I can laugh at them, and smile now over the dainty treasures of bud and blossom. I have succeeded in cultivating them well, so am content. They keep well in the cellar if the wood is well hardened, and are excellent on that account for the amateur who has but little room for plants. I start mine into growth in February, being eager to hasten the blossoming time. They would be perfect if they only had fragrance, but are lovely any way. M. R. W.

A WILD VIOLET.

Some years ago a friend in Colorado gave me a root of Violet she found growing wild up in the mountains, and said that the flowers were frequent and profuse throughout the summer. As I was a wanderer just then, I sent the plant to the care of a friend near my old home in Illinois. She wrote me, the next summer, that the Violet was making luxuriant growth and had a few flowers, but that they were so tiny and so close to the ground that one had to search for them.

This was a sad disappointment, indeed, for I had heard the plant praised very highly by several Colorado friends. After returning home I was in no haste even to inquire about my Violet, as I had almost entirely lost interest in it. But after two years, or more, I visited my friend in summer time, and upon viewing the plant, as it stood in her garden, I suspected it might have qualities undeveloped. She had it in poor soil and quite exposed to mid-day sun, yet it was fully

two feet in diameter and one foot tall, and the time was in August. I found a few flowers near the ground and several blighted buds along the stems, which proved it a constant bloomer. I said, "I will take a good clump of this home with me, and see what I can do with it." "Take it all, if you wish, for I care nothing for it," was the reply.

I cut out a mass about six inches square and some four inches deep, clipped off the tops nearly to the soil and wrapped it in paper, and kept it damp two days before I was ready to plant it. I meant to give the plant a thorough trial, so I selected a spot in the border that was shaded from fierce sun, had it spaded to a depth of one foot, and the pulverized soil lifted out, then filled in six inches deep with old yellow clay from the cellar digging, which had been exposed to the air for a couple of years. On top of that was placed three inches deep of good quality well rotted manure from the cow-yard, then with some of the soil that was taken out I had mixed the same quantity of decayed wood from the under side of an old log, and about half as much sand. This was thoroughly mixed, and the hole filled up and the surface raised two or three inches. Then a quantity of water was slowly sprinkled on, and after a few hours the clump of Violets was placed carefully in the center of this bed, and four young Pansy plants around it at the distance of one foot. All prospered from the start, but called for water morning and evening.

As soon as the Violet made joints buds appeared and developed to fine large flowers, a little less than an inch in diameter, with delicate fragrance. The buds

were a rosy purple in color, but opened snowy white on the inner surface of the petal, with pencilings of mauve and black.

Before there was much display the season was ended, and I gave the whole bed a loose covering of leaves. The Violet, also the Pansies, which had made fine plants and given some grand blooms, went to bed loaded with buds ready for their "spring opening," which they made very early, and by the middle of June the whole bed was a sight to behold. The Violet stood fully fifteen inches high and as many across, and at every joint of stems a cluster of flowers, with from six to a dozen in a cluster, standing well up, so that fifty feet away the blossoms were conspicuous. The more I cut the stems, like pruning the plant, the more flowers appeared, and now I would not exchange my wild Violet of the "Rockies" for any other Violet known. It proved to be *Viola Canadensis*.

Now I cannot forbear adding that we should be careful about judging of new plants. High praise might mislead many to purchase plants that would be entirely worthless in their hands, and condemnation, on the other hand, might prove ignorance of highly valuable qualities possessed that we have not taken the right means of developing. It is better to experiment and prove all things.

Also, please, do let us all try to find and give the true name to every plant we handle. A "rare plant," under the name of "La Reine Angela," was offered me in exchange for something "extra nice." The description, however, was true to nature, and proved conclusively that the plant was the well known *Saxifraga sarmientosa*.

ROSINA A. HOLTON.

THE PETUNIA.

My experience with the Petunia obliges me to rank it very high as a handsome and useful flowering plant. It can be made to do duty in so many places, and always with so much credit to itself that I can well afford to say a few words in its favor.

Under cultivation this plant has passed through many changes. In 1823, Mrs. LOUDON, in *The Ladies' Flower Garden*, described the two species then known, the white and the purple Petunia, which even then had become general favorites.

Of the White Petunia, *P. nyctaginiflora*, she wrote as follows:

"The White Petunia is so general a favorite, and so common everywhere, that it seems difficult to believe that twenty years ago its very existence was unknown among us. It is a native of South America, near the mouth of the Rio de la Plata, where it was discovered, and seeds of it were sent to Europe in 1823."

The Purple Petunia, *P. violacea*, was found in 1830, on the banks of the river

Uruguay, whence seeds were sent to the Botanic Garden, at Glasgow, and it bloomed in Great Britain for the first time in 1831.

Thus, these two species introduced the *Petunia* into cultivation, and they are the progenitors which, with but little other intermixture, have produced the numerous race of hybrid varieties that now enrich



PETUNIAS IN VARIETY.

our gardens. Hybridizing, careful selection, and recrossing have wrought wonderful changes, giving flowers of different sizes, many shades of colors, and great variety of markings, and also, double flowers of endless variations.

The single varieties planted in masses on the border are very effective, as they always show an abundance of bloom through the summer and late into autumn. The seed germinates freely, and the plants after setting and being kept free from weeds until they cover the ground, which they do in a short time, need no further care, but continue all through the season to produce freely their flowers always above the foliage, so that they appear to the best advantage. The small-flowered varieties give the

greatest amount of bloom, and, as they are bright in color, they make very showy masses.

The only fault to be found with beds of *Petunias* raised in this manner, is that in the latter part of the season the great amount of growth, which by that time becomes entangled, gives the bed a rather weedy appearance. This can be obviated with a little care, in the following manner: Procure some pliable rods, such as small Willow shoots about two feet in length, and bending the ends toward each other, thrust them into the ground so that the center of the arch will be about six or eight inches in height; proceed in this way over the bed until it is covered with them closely enough to tie to them the stems of the growing plants. These will soon cover the arches so that they will not be visible, and the future growth will be supported, and the flowers will all show to better advantage, few of them being concealed by the foliage. Wire net-work with large meshes, supported about eight inches above the ground, has been employed for the same purpose, greatly improving the appearance of the bed.

Plants of the large-flowered varieties should be allowed more room than the bedding sorts. A bed of mixed varieties is better than one sort, or raising different varieties by themselves. Although seedsmen now offer many varieties which are fairly well established, yet they do not reproduce themselves exactly and invariably. If one should fancy any particular plant and wish to increase it, it can be done by using cuttings from it, thus multiplying it at pleasure.

It is not necessary to be particular about having rich soil for these plants, for their tendency is to grow at the expense of bloom when the soil is quite rich; a rather poor soil is preferable.

As window plants both the single and the double varieties are excellent. The pots should be provided with wire frames, oval or globular in form, to which the shoots of the plants can be tied as they grow, thus causing all the flowers to show. The plants, if kept in the light in a moderate temperature and regularly watered, will continue to bloom all through the winter and spring. Plants for winter blooming can be raised from seed sown in August. I have found the

seeds of the double varieties much more difficult to germinate than the others, but if one can successfully raise even one plant of double Petunia it is worth all the trouble it takes, for the flowers are very

showy. Lastly, I will say that the Petunia is a plant that one totally ignorant of plant-growing can succeed with, and yet one that will respond in beauty for skill and attention. S.

AMARYLLIS.

Of all the varieties of these lovely bulbous plants, *Amaryllis Johnsoni* seems to stand out the most prominent. It wins favor the more readily by the richness and beauty of its coloring, and by its luxuriant growth when under proper cultivation. I used to wonder why my bulbs gave me but one flowering stem apiece, and that holding a cluster of but two or three flowers of inferior color and size. But I found that my mistake lay in an improper treatment of the bulbs after blooming. I now take the bulbs from the pots as fast as done blooming, taking great care not to shake any of the soil from the bulbs in removal, and pack closely in a long box which I have for the purpose. I set this out somewhere, leave it all summer, paying no attention whatever to it. Early in the fall I set it away under roof until the ground about the bulbs is perfectly dry. Then the box goes into the cellar and remains there until sometime after Christmas, or the holidays, when I bring up and pot as many of the bulbs thus preserved as I want for present blooming; it is often but one or two, as I like to have them all along, in rich wood loam and sand, and

start them in my window. I have soon a fine show for budding, and my plants are, since I began this treatment, certainly fine. I often have two flowering stems come from one bud at once, with five flowers to a stem, making a double crown of flowers.

There are, also, the summer flowering varieties of *Amaryllis*, among which we find our favorites as well, rich, velvety crimson, whose striking form and color arrest the eye, or dainty, delicate pink, or snowy white. These may be treated still differently. The bulbs should be taken up from the garden beds when ripened, generally after frost, and stowed away, much the same as *Gladiolus* bulbs. I pack mine in dry sand in a good dry cellar, and plant them out with the *Gladiolus* in the spring.

Lilies have been introduced that may well engage our attention, among which we note the magnificent *Harrisii* and the Japan varieties, yet our affections still cling to the old-time *Amaryllis* of earlier date, and we gladly submit any experience of our own that may be of use to some reader whose love lies in the same direction. H. K.

THE ROSE MONTH.

Faint the echo of our words;
But we have the song of birds,
Music that our love discloses;

The sweet language of the flowers
Tells the truest thoughts of ours
In soft syllables of Roses.

G. W. B.



FOREIGN NOTES.

PRUNING ROSES.

Another preliminary to general pruning should yet be attended to, and that is the thinning out of all weakly or exhausted shoots all over the Rose bush or tree. By removing these first the shoots that need cutting back will be more easily reached, and the degree of such cutting may be readily and wisely determined. The removal of all weakly shoots will also help to prolong the life, augment the vigor, and enhance the beauty of our Roses. As to the actual degree and amount of pruning in so far as it relates to the cutting back of last years' wood, so much latitude must be allowed and is claimed by every rosarian, that no hard-and-fast rules can be laid down. The safest and the likeliest to avoid controversy, and perhaps the one on the whole the most useful, is to let every one be persuaded in his own mind of the rightness and reasonableness of his practice. The experienced rosarian, while ever ready to learn, looks back along the highways and byways of his past success, and repeats his prunings on the same lines as led to them. But these were not measured out by eyes in number or inches in length, but rather by the eagle eyes of observation — common sense and knowledge controlled by sympathy and affection. The novice may be told that he may cut his young shoots back, ranging over the wide area of from two inches to twenty inches, and be equally right in both his prunings. The majority of Roses grown for the perfection of their individual blooms, such, for example, as the major number of Hybrid Perpetuals and Teas, may be pruned back from one inch to six inches, three being a fair average. Again, the weaker the Roses, prune them the harder and the closer; the stronger, prune them the less and the longer. These general rules are almost all that can be offered for the guidance of beginners until the science and practice of Rose pruning becomes so perfected that each species and variety can be pruned by rules carefully evolved from the results of general practice and experience.

Each additional season's pruning, if carefully performed and the results tabulated, will bring about that better time so devoutly wished by many when mistakes in Rose pruning will have become impossible. Meanwhile it may be well to state that these remarks do not apply to the pruning of Roses for picturesque effect, and leaves the question of whether the latter should be pruned at all, and how and when, just as it was before they were written.

D. T. F., in *The Garden*.

ROSE PRUNING.

When a Rose shoot is pruned, a little paint should be rubbed on the wound: not to prevent bleeding, but to prevent insects harboring in, and laying their eggs in, the soft exposed pith. Much danger from insect enemies is avoided by this simple plan. As to the first pruning itself, one can hardly prune too short; I have often regretted leaving the shoots too long, but never the reverse. It is customary to say, leave more wood on the Teas than on the Hybrid Perpetuals; but I have always found the former as much benefited by short pruning as the latter. It is, however, at times impracticable to prune the Teas as close as we desire, owing to their long-jointed habit, and we have to be content to cut at a plump bud a considerable distance from soil. When the first pruning is done do not think that we can lay aside the knife; no, it must be in our hands the whole season through, if we aim at quantity of bloom from closely pruned plants. When the buds have started, go carefully over the plants, and where several occur at the same joint rub all away but one. When the shoots are one inch or two inches long go again over the plants, and if any are coming blind cut back again to the main shoot. Never permit a blind shoot to grow on. It is difficult to write instructions how to distinguish a blind from a flower-bearing shoot, but I scarcely think that an observant person can fail to distinguish between the two. There is a healthy thickening point on the flower-

bearing shoot that commands attention. When a blind growth is cut back to the main shoot, two or more buds will appear at this point; as before, only one should be left. When the flower buds form, thin to one only in each shoot. It is customary to say that if you wish quality thin to one bud; if quantity, leave more. But this is only approximately true. Some of the finest Hybrid Perpetuals will not expand their blooms if more than one is left. Be this as it may, that which we have under consideration is how to get the greatest quantity of cut blooms from hard-pruned plants; and we can not afford time to let more than one bud to each shoot expand. For, as soon as a bloom is ready for gathering we must cut back to a healthy bud on the shoot that may break and form another flowering shoot. There is, however, one good argument against thinning to one flower bud, and I do not like to pass it over in silence—viz., that a bloom when cut for decoration is much more beautiful when surrounded by unexpanded buds—it gives an air of promise. But rather than spoil the bloom and exhaust the plant it is wiser to group other buds with it, and for this end it is well to grow some summer-flowering and China Roses from which to cull a handful of buds when required. This, then, is the system I am advocating; that the plants should be constantly watched all through the season, and all blind shoots cut away, so that a constant succession of flowering shoots are produced. The usual plan is to have a heavy flowering in early summer, then prune, and have another crop of more or less quantity, according to the season. But if constant pruning is maintained the plants are scarcely out of bloom the season through.

There is another system of treating Roses in open ground so as to get a plentiful supply of cut blooms, but it is only applicable to varieties of free growth. The beds for this system should be five feet in breadth, having, as before, two parallel rows of plants two feet apart in row. Place five rows of stout wooden pegs along the bed—one along the center, one along each edge, and the other two dividing the distance between edges and center. The pegs should be six feet apart in row, and on the top of each drive

a stout nail. Then strain galvanized tying wire from peg to peg, twisting it round the nails. In spring, instead of pruning, bend the strong shoots across the bed, tying them to the wires. The point of each shoot should be tied close to the furthest wire it will reach, and then place the loops of bast from the intermediate wires to keep the shoot in position. This bending will cause all the buds along the shoot to break. Cut away all weak growth; and, as the season advances, cut out blind shoots and thin flower buds, as recommended above. This system gives a more plentiful early summer crop than the first; but toward the end of the season you have to shorten the main shoots to get strong growth for next year's work. So, taking the season through, you do not gain in quantity of blooms off a given area of ground.

S. S. B., in *Gardening Illustrated*.

JAPANESE FOOD PLANTS.

A list of the Japanese food plants has been published by the German Consular-assistant at Yokohama, Herr MUELLER-BEECK. A great variety of fruits and vegetables are named, many of which are noticed by the *Gardeners' Chronicle*, and from this notice we take the following:

Amongst Coniferæ the seeds of *Salisburia adiantifolia* and *Torreya nucifera* are eaten. In Cycadaceæ the leaves, pith and seeds are eaten, Sago being manufactured from the pith. The roots of several species of Arums and Alocasias are used as food.

The Liliaceæ furnish the Japan kitchen with many fine bulbs that are cooked for the table, and those chiefly of sorts which find their greatest appreciation as decorative plants in flower beds with us. Apparently all the roots of Japan Lilies are eaten as vegetables, as well as many species of Allium, viz., *A. schœnoprasum*, *A. arenarium*, *A. senescens*, *A. odorum*, *A. Cepa*, *A. fistulosum* and *A. ascalonicum*. Even Ferns do not escape being eaten, as we find that young fronds of *Pteris aquilina* and *Osmunda regalis* are made use of for food; and among Lichens, *Bacomyces digitatus* and *Usnea florida* share the same fate. Of Fungi, Puffballs, *Agaricus campestris* and one other species of *Agaricus*, and *Tremella auricula* are consumed.

Two species of Algæ are in a manner

cultivated in Japan; small branches, on which *Enteromorpha intestinalis* and *E. complanata* attach themselves, are stuck into sea water in September, October and December, and taken out in November and January, when the sea weed has grown to a usable state.

ROSES.

In the autumn of 1871 our first collection of Roses was made, and carefully planted in a plot of land, previously prepared, well sheltered on the west side. The majority of the plants did exceedingly well, and even to-day two-thirds of them are alive and flourishing, and have not failed to lighten the eye and gladden the heart each succeeding season by giving us numerous fine flowers, rich and charming in their wonderful combination of color, fragrance and form. Does not the fact of two-thirds of these Roses, planted in 1871, being still to the fore, not only existing, but sending up strong flowering shoots every year, argue strongly in favor of budded Roses, all these being budded plants? Since that first planting in 1871 constant additions have been made, care being taken to plant properly, and this is rather an important matter, though often hurried through. Each plant should have three or four shovelfuls of old farmyard manure thoroughly mixed with the soil. The planting is best done by a man who is fond of Roses, who, as he looks on a grand plant of *Maria Baumann*, handles it with loving tenderness, carefully distributes the roots in the hole made for their reception, covers them to the depth of five or six inches, and treads them firmly yet kindly. Too often planting is done in this way: A spadeful of soil is lifted, the plant thrust in regardless of the upturned roots, soil thrown back, and then the planter's heel comes down with a plunge on the poor tender roots. In some cases the people go to the other extreme, and dispense with the treading, which is ruinous even to the best of plants.

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If large flowers are wanted severe pruning must be resorted to; but if quantity of bloom, then pruning may be less severe. Weak growing varieties require close pruning. In all cases the shoots should be cut down to a prominent bud

looking outwards; this hinders overcrowding in the middle of the plant, and lets in the sun and air, which play an important part in the production of fine flowers. Frequent waterings with liquid manure are highly beneficial, and occasional dressings of manure are required during June and July to prevent the plants becoming parched and dry; the plants must never feel a lack of moisture, or the blooms are injured at once. In a large collection it is impossible to give each plant the attention that it requires and deserves, but an amateur can easily keep his fifty or one hundred plants under control, and richly will he be repaid for every little attention his plants receive.

* * * * *

For yellow Roses at present we must look among the Teas, and here are some of the most beautiful Roses: *Etoile de Lyon*, *Perle des Jardins*, *Belle Lyonnaise*, *Boule d'Or*, *Bouquet d'Or*, *Madame Berard*, *Perle de Lyon*, and last, but not least important, old *Gloire de Dijon*, which is perhaps more frequently met with (in the gardens of all classes) than any other Rose in cultivation; all these Teas are tolerably hardy, and may be grown successfully anywhere where Hybrid Perpetuals succeed, and need only a little protection in winter, such as common Fern fronds or loose stable litter afford.

HARKNESS, in *Gardeners' Chronicle*.

THE ROSE SEASON.

With regard to the Hybrid Perpetuals it is well known that they give a second bloom, and if the old flowers are cut off the eyes next to the top will start into fresh shoots, which in most kinds will give a second flowering; and hence the name applied to them by the French, *hybride remontante*, is much more correct than our Hybrid Perpetual. Exhibitors do not, I believe, care for the second flowers, and pinch them out (at least some of them do) but those who want a continuous bloom will gladly welcome them. It is now, however, that the Tea Rose comes in so delightfully to help to prolong the season; its China blood gives it much the character of the old monthly Rose, and so it is forever throwing out new shoots, and these bear excellent blooms. Formerly the Tea Rose was considered to be synonymous with

all that was delicate and difficult to manage, but of late years new varieties have been added which combine beauty with hardiness and strength of constitution; in fact, quite as much so as many varieties of Hybrid Perpetuals. Take, for example, such varieties as Madame Lambard; nothing can exceed the exquisite beauty and variableness of this lovely flower—sometimes almost a red, at others a pure yellow, at others that exquisite combination of coloring which makes the Tea Rose so beloved by all Rose growers, and then, unlike a Hybrid Perpetual, it does not fly so rapidly. You bring in a lovely bloom of Charles Lefebvre or Duke of Edinburgh, but almost at the time it is put into the vase its freshness seems to be departing, and next day slatiness and dullness take the place of its glowing colors. Not so with Madame Lambard and with many Teas—they will last three or four days, and yet seem to keep their freshness. I have known a bloom of Souvenir d'Elise to have been shown at two exhibitions three days apart. I have instanced Madame Lambard, but there are other Roses in the same class quite as vigorous.

Taking all these things into consideration I do not think that it is fair to declaim against the Rose as if its season were a short one; and when we consider how it combines everything that a flower ought to have—beauty of form and color, delicious perfume, bright foliage, and good habit of growth—it is not to be wondered at that it is so popular, and that even under the most unfavorable conditions persons will still attempt to grow the queen of flowers.

WILD ROSE, in *Gardeners' Chronicle*.

TO GRASS A BANK.

According to the *Gardeners' Chronicle*, the Germans employ the following described method to seed a bank:

For each square rod to be planted take half a pound of lawn grass seed and mix it intimately and thoroughly with six cubic feet of good dry garden earth and

loam. This should be placed in a tub, and liquid manure diluted with about two-thirds of water added and well stirred in, so as to bring the whole to a consistency of mortar. The slope must be cleaned and made perfectly smooth, and then well watered, after which the paste just mentioned should be applied with a trowel, and made as even and as thin as possible. Should it crack from exposure to the air, it must be again watered and smoothed up day by day until the grass makes its appearance, which will be in from eight to fourteen days, when the whole declivity will soon be covered with a close carpet of green.

STONES IN THE GARDEN.

One good use of stones in the garden is in layering, for we find that shoots and branches of all plants, shrubs and trees root much more quickly if placed in the soil and covered with a large stone than if pegged down in the usual way. Even for many hardy plants we find this plan of stone-layering very successful. A few good boulders half sunk in the turf make a fine position for clumps of *Yucca flaccida*, or of *Acanthus*, or, if carefully grouped and fringed with any small-leaved, creeping forms of Ivy, they make very beautiful groups, and add variety to flat surfaces.

VERONICA, in *The Garden*.

MARECHAL NIEL ROSE.

My own experience is that the tree, whether on the Brier, on which it seems to thrive most vigorously, the Manetti or its own roots, reaches its prime at the age of six or seven years, and succumbs at fifteen to sixteen. I have seen older plants disfigured by being coddled up in the stem with moss or pots containing soil in order to induce it to take a fresh lease by emitting roots from the stem. Is there no other stock besides the Dog Rose, that will keep pace with the growth of the bud or scion?

T. W., in *Gardeners' Chronicle*.



PLEASANT GOSSIP.

VIOLETS—PANSIES—HYACINTHS.

I want to ask your advice as to the character of location that is best for Sweet Violets. I have several varieties, Swanley White, Marie Louise, Belle de Chatenay and Neapolitan, and none of them have bloomed. I have them in a circular bed around the roots and base of a Walnut tree. The place is quite shaded, the ground rich and loamy. They grow luxuriantly and buds form, but they never bloom. Can you tell me, if it is possible to shade them too much?

Can Pansies be raised in a hot-bed, under glass, and be made to bloom through the winter?

Does it in any way injure Hyacinths and other bulbs to cut the tops off after they are done blooming? I want to plant some annuals, and the growth of foliage is so luxuriant as to make it difficult, and I want to cut them off, but am fearful of injuring the bulbs.

Can you tell me anything that will kill a little green louse that flourishes on young shoots of Roses, in great numbers, and on the under side of the leaves? It is a great pest and nothing seems to destroy them. If you will answer by mail, or through your MAGAZINE, I will be under many obligations.

P. H. P., *Douglass, Ark.*

It is quite possible to set Violets in too shady a place, and that is probably the difficulty in this case. A light shade, such as would be given for a few hours in the middle of the day, would be an advantage to the Violet, but more than that injurious.

Pansies can be had in a blooming condition all winter, in a cold-frame, if it can be so protected as to keep out frost.

Bulbous plants should not have the tops removed until they show signs of ripening by turning yellow and drooping.

Answer in regard to green-fly, green-louse, as here called, will be found elsewhere in this department this month.

RENEWING ROSES.

We have in our yard a collection of old fashioned Roses, such as double white, hundred leaf, single red, single variegated, yellow and white Tea Roses, &c. The grass was thoroughly grown around them when we came here, and little has been done to them for fear of losing them. Some of them must be moved to do well, and others are very ill-shapen. Will you tell me, through the MAGAZINE, what to do with them, and more particularly when to do it. I am so much afraid of killing them that I dare not experiment.

S. A. M., *Litchfield Co., Conn.*

Leave the plants where they now are and enrich the soil. If they should be transplanted, let it be done next fall or

spring in a piece of well manured ground. Retain the growth, this season, of all shoots starting near the base of the plants. In the spring cut away the old wood and cut back the strong young shoots to a length of six or eight inches from the bottom. If moved in the fall they must be well protected by leaves, and, if possible, these again covered with evergreen boughs for the winter.

PRUNING SHRUBS—PIE PLANT.

Will you please answer, through the MAGAZINE, 1st, When, and how much, shall one prune newly set shrubs for the most vigorous growth?

2d, Is it best to remove all or only a part of the upspringing shoots at the bottom of old established shrubs, like Snowball and Spiræa prunifolia, to get the most bloom?

3d, Why does my Rhubarb, Pie Plant, run up to seed so early in the season, and what is the remedy? Is it because it is young? It is only four years from seed; is well cultivated in rich ground. It has done this way for three years.

You answer everything, so I am emboldened to send you this. I have taken the MAGAZINE since its publication, except one year; I intend to have that year for a special treat soon. I have all the CATALOGUES since 1870, and value them like old friends.

E. L. T., *Indianapolis, Ind.*

One cannot well cut back most kinds of flowering shrubs too closely when transplanting.

The Snowball usually appears best if trained to a single stem with a low head; young shoots springing from the base of a Snowball in this form should all be removed. The new shoots of Spiræas should be kept if they are not too numerous, and the old stems be cut away every two or three years.

It is customary for the Rhubarb to send up its flower-stem in spring, and it should be pulled out whenever it appears.

DORMANT WAX PLANT.

Please give me some information on the following question, in your next issue. I was given, a year ago last June, a slip of the Wax Plant. After a year it had not grown, but was still alive. I took it out of the pot, and found that it had a strong root; I repotted it in a little larger pot. It is alive, but has not grown at all. What can I do with it?

Mrs. W. T., *Lachine, Quebec.*

With light, heat and a regular supply

of moisture, the plant should grow. As to moisture but little is needed until vigorous growth commences; if too much is supplied before growth begins that might prevent it. The pot should be well drained that there may be no stagnant water at the roots. Possibly the cutting may be at fault, and have no eye or bud. If the plant is sound and has a good bud it will probably start with the heat of summer.

PROPAGATING CRAPE MYRTLE.

Will you state, in your MAGAZINE, next month, what time is best to start cuttings of Crape Myrtle?

Also, give name of plant a flower and leaf of which I send you. It opens about 4 o'clock in the afternoon, and closes at 8 o'clock in the morning. M. M.

The Crape Myrtle, *Lagerstrœmia indica*, is propagated from cuttings of ripe wood; these can be put in the soil in a cold-frame, and will root like the Grape or the Currant. It can also be raised from seed.

The flower is that of one of the species of evening blooming *Nicotianas*; the specimen received is insufficient to determine which species.

CALCEOLARIAS.

Is it not something unusual for *Calceolarias* to flower the first season? Wishing to raise some plants of this elegant flower to grace my little conservatory next winter, I started some seed on the 6th of last January. I have now twenty-five plants all in thriving condition, the largest of them are in three-inch pots, and they have already thrown up their flower stems full of buds. This is a disappointment to me, as I did not want them to flower before winter, and at the rate they are going I am very much afraid that even the smallest ones will have bloomed before July is over.

MRS. C. B.

The seeds should not be sowed until late spring if blooming plants are wanted for the winter season. A prize essay on *Calceolarias* will be published next month.

EUONYMUS—FARFUGIUM.

I have a plant that I do not have very good success with, nor do I know its name. I send a leaf and at some future time will you publish the name and give the proper treatment of the plant?

Nor do I have any luck with *Farfugium grande*. I had a very fine plant last fall, but now there is left only one leaf on it.

S. E., *Odessa, N. Y.*

The leaf received is that of the golden variegated form of *Euonymus Japonicus*. This plant is one that it might almost be said wants no treatment. Put it in good soil, keep it moderately moist. In winter it should be kept in a cool temperature—it will even stand a few degrees of frost

without injury. As a house plant there is far more danger of keeping it too warm than too cool, and possibly that is the cause of the unthriftness in the present case.

The *Farfugium* requires a warm temperature and only a moderate amount of moisture in the soil during the cool and dull weather.

A DOUBLE THALICTRUM.

I send you, to-day, a little box containing some flowers which I think may interest you. The plant from which they were gathered was found growing in the woods, and was carefully taken up and removed to the garden, where it has blossomed freely for three years. It is now covered with buds and flowers, having been in bloom since the middle of April. No one who has yet seen the plant has ever known of one like it before; but I think you will be able to determine what it is. The root is very much like a diminutive *Dahlia* root, the little bulbs being about an inch in length. If the plant is familiar to you, will you please let me know the name?

C. M. W., *Cedar Rapids, Iowa.*

This plant is an abnormal form of *Thalictrum anemonoides*. The flowers are quite double, from a quarter to a half inch in diameter, purplish. It is a botanical curiosity, and as an early spring blooming plant pretty and desirable for the garden.

A TROUBLESOME VERONICA.

The enclosed little pest was much admired on its first appearance for the beautiful little blue flowers; but it runs all over the bed and has become very troublesome. What is it, and how can its "network" meshes be eradicated?

E. L., *Stoughton, Wis.*

This little trailing plant, rooting as it runs along, and lifting itself only about three inches high, is a foreign species of *Veronica*. We think it can be destroyed only by persistently rooting it out.

PLUM CURCULIO.

We have in our yard three Plum trees, all of the large variety, but when the fruit is half grown it falls off, I presume, from the sting of the curculio. We have never had more than a dozen Plums mature on either tree in a season. Can you tell me of any remedy for it.

C. J. M. T., *Emsworth, Pa.*

The course that has met with the best results in the destruction of the curculio on the Plum has been the sudden jarring of the tree, thus causing the insects to drop, when they are caught on sheets previously laid on the ground under the tree. The jarring should be done in the early morning, when the insect is comparatively inactive. The best way of op-

erating is to remove a small limb, leaving a short stump; place a stout pole against the stump, and strike the end of it with a heavy mallet with sufficient force to give the tree a strong jar. The insects can be destroyed by turning them into a vessel of hot water. On the last page of this number will be found a description of the method of using Paris green for the destruction of this insect.

HERBACEOUS PÆONIES.

A friend in Iowa has sent a photograph of a Pæony that was purchased several years since, but now grown to a handsome size. The engraving that has been prepared from it represents it in its natural form. The large flower measured



PÆONY.—FROM A PHOTOGRAPH.

eight inches in diameter. The plant is evidently one that its owner regards with pride and pleasure, and he may very properly do so. A group of three or four well grown plants of different colors of the best varieties of Pæonies is a pleasing object at the season of bloom, and the plants are clean and bright all through the summer. The fine varieties of herbaceous Pæonies are well adapted to slightly places near the house.

PRUNUS IN IOWA.—*Prunus Pisardii* has proved to be too tender to bear the winters of Iowa, while *Prunus Simonii* and *P. triloba* are sufficiently hardy.

INSECT PESTS.

During the present month and the following one the insect pests will give much trouble, and their destruction should be accomplished promptly. A few brief notes in regard to the destruction of some of the most prevalent ones may prove useful.

The green fly on house plants and Roses in the open ground can be destroyed by syringing with weak tobacco water—a mixture in hot water of soft soap and a small quantity of tobacco juice is excellent. In the case of house plants the green fly can be destroyed easily by smoking them with tobacco smoke, the plants being enclosed in a box or small room. Or the plants can be dipped or immersed in weak tobacco water. After either of these operations syringe the plants with clear water.

The rose bug can be destroyed by an application of insect powder in water, or by dusting the powder over the plants and insects, with a bellows, such as are used for this purpose. The same remedy is efficient in the destruction of the common Cabbage worm.

Complaint is often made of a little black beetle that destroys the flowers of the Aster. Pyrethrum or insect powder will destroy it.

Cut worms are often destructive in some fields during this month; one of the best ways to manage them is to mix one part of Paris green or London purple with twenty parts of flour, and dust it over some young Cabbage leaves, and place these along through the

field they infest, turning the powdered side down.

The grub of the May beetle is a very destructive creature, and it is almost impossible to destroy it directly. The best course to pursue is to make bonfires, burning old brush at night during the month; most of the insects will be destroyed by flying into the fires.

White Hellebore is the best sure destructive agent to the Currant and Gooseberry worm.

Mealy bug can be destroyed by use of a kerosene emulsion; an easy way of preparing it is to churn up equal quantities of kerosene and sour milk, and this can be well done with an egg-beater. Then

use a tablespoonful of the mixture to a pailful of water. The same preparation can also be used successfully against Cabbage and Currant worms; it has also been employed satisfactorily for the destruction of the Squash bug. For this insect it needs to be thrown upon the plants with considerable force, such as can be given with a hand force pump; when merely sprinkled on it fails to reach the under sides of these insects, where it affects them.

We advise the use of this kerosene mixture for the riddance of any new insect pests, the means of whose destruction is unknown. This substance is so valuable an insect destroyer and should be so well known that we shall probably be doing service to many of our new readers by here repeating some directions given concerning it last year.

"One mixture is as follows: Boil a quart of soft soap with two gallons of sour milk, and when cool add one gallon of kerosene; the whole is then churned for half an hour or more until well mixed. When used dilute with twenty times its bulk of water. Professor TRELEASE, of the Wisconsin Experiment Station, says: 'As the result of numerous experiments, I would recommend an emulsion consisting of refined kerosene two parts; fresh, or preferably sour, cow's milk one part.' The oil and milk are churned together from fifteen to forty-five minutes, varying with the temperature. The churning requires to be more violent than can be effected with an ordinary butter churn, and the aquapult force pump is recommended for the purpose. 'The pump should be inserted in a pail or tub containing the liquids, which are then forced into union by continuous pumping back into the same receptacles through the flexible hose and spray nozzle.' When this process is carried far enough 'the liquid finally curdles, and suddenly thickens, to form a white and glistening butter, perfectly homogeneous in texture, and stable.' This butter should be put up so as not to be exposed to the air, and can be used as needed by diluting it with water, two gallons to a pint of the butter."

The slugs that eat the leaves of Rose bushes and Cherry and Pear trees, can be killed by syringing them with whale oil soap and water.

The codlin moth can be destroyed by

means of Paris green and water—one pound of the poison to one hundred gallons of water—applied with a force pump, throwing a spray over the whole tree while the fruit is about the size of marbles, or within two or three weeks after the fall of the blossom. If heavy showers should occur, a second spraying might be necessary.

Some of these insects and many others are caught by keeping shallow vessels of sweetened water and a little vinegar added, hanging about the orchard until July, and again in the month of August.

The Apple tree and Peach tree borer, when they have worked into trees must be worked out or killed with a stout wire, and afterwards, as protection, coat the bark of the tree about the base with lye, or soap and water, soft soap and carbolic soap being best.

TWO HANDSOME SHRUBS.

Prunus tomentosa and *Prunus triloba*, planted near each other, form a happy combination. They are both erect, dwarf shrubs, like miniature trees. *P. tomentosa*, with its pretty little white flowers, comes into bloom quite early, and is succeeded by *P. triloba*, with double, pink flowers, which follows it just as the former drops its blossoms, both blooming before the leaves appear. The former was in full bloom here, this spring, on the 24th of April, and the latter May 3d.

ROSES IN THE TROPICS.

Some of our readers in Jamaica and other tropical localities have mentioned the fact that the Hybrid Perpetual Roses do not bloom well. This is true of this class of Roses in all hot countries. A practical remedy for it is said to be the budding of the different varieties upon the stocks of the Tea Rose. This is a simple method, and if efficient would greatly enrich the rosery of the tropics.

THE WEATHER OF MAY.—The weather of the first half of May in this region has been exceptionally fine and without frosts, and the prospect of abundant crops is excellent. From Ohio westward the country has been visited by destructive electric storms; hurricanes, cyclones, excessive rainfalls and hail storms have destroyed many lives and an immense amount of property.

IN THE FRUIT GARDEN.

June is a busy month everywhere, and the fruit garden forms no exception to the rule. There is but little to do in bearing beds of Strawberries, except to gather the crop. This is often no light task, coming as it does in the worst month for weeds in the whole season. New beds of Strawberries must be kept clean by constant use of the hoe and cultivator. No work should be done in fruiting beds, except to gather the crop and pull up by hand any weeds that may run up to such a size as to be in the way.

Do not run the cultivator among the Raspberries while in fruit, the branches are very brittle, and so many clusters of berries will be broken off as to be a serious loss. A good mulch of straw, leaves, or old hay will often carry a Raspberry crop safely through a drouth that would otherwise shorten the yield of fruit very much. As the young canes grow up, pinch or cut off the top at a height of from eighteen to twenty-four inches, but always cut while still young and soft, there should not be over five or six inches of growth to cut off. If allowed to grow up three or four feet high and then cut back to two feet, the buds will be so far apart that there will be but few side branches. If only one or two should start, they may be stopped again when a few inches long and made to branch, and thus a good head may be formed. If several branches start, do not cut them again, but allow them to grow unchecked until fall. The best tool for cutting these canes is a sharp heavy knife, a common butcher knife kept very sharp is as good as any thing. If the knife is sharp, one or two strokes will finish each hill, and it requires very little time to go over a plantation. But it must be gone over two or three times, as the canes do not all grow up at the same time.

These same directions apply to Blackberries, except that the canes should be allowed to grow a little higher, say from thirty to forty inches.

If the orange rust appears in either Raspberry or Blackberry patch, grub out all infested bushes at once and burn them; no other remedy is safe.

Currants and Gooseberries need very little work at this season, if they have been properly cultivated during April and May. They must be watched to pre-

vent the ravages of the currant worm. At the first appearance of these pests apply powdered white Hellebore freely.

Do not summer prune your Grape vines. When I first began raising fruit for market the theory of Grape growing, as given in books and papers, required a large amount of pruning and pinching in summer. Many still have an idea that they must trim their vines while growing, some even picking off many of the leaves and exposing the fruit to the sun, under the mistaken notion that it will ripen better. This is all wrong. I learned by experience that our native Grapes do best when left alone during the growing season. Prune heavily in fall or winter, but allow the vines to grow unchecked through the summer. Never pick off any leaves; the Grapes ripen best in the shade, the berries may color up a little sooner if exposed to the sun, but they do not ripen properly. W. C. STEELE.

BEGONIAS AND GERANIUMS.

Will some reader of the MAGAZINE tell me what treatment the Metallica, Rex and Louis Chretien Begonias require? I had a Rex that, to all appearance, was doing grandly, when all at once the edges of the leaves began to dry up and finally fall off, till not a leaf was left. I kept it on a small table near my bay window, but where it got very little sun. I took it from the room when I swept, and sprayed the leaves once or twice a week, and never let the sun shine on it when wet. When it died I thought I'd give the Metallica a better chance, for I was especially proud of it, so I put it in the sunniest part of my window, on a bracket where it had the east and south sun. It did nicely all winter; but just lately, middle of April, the leaves are falling and it is nearly dead. I cut it back when the top began to fall and repotted it, but could find nothing wrong.

My Geraniums, this winter, have not done well at all; they were started last summer, and buds all picked off until they were brought in, but nearly all the buds blasted. What is the cause of this? My room is heated with hard coal, and I try to give my plants pure air every day. I have always had good success in having winter bloom before, but the leaves fall, and they all look sickly, and yet I can't find any reason. AN OLD SUBSCRIBER.

ACHIMENES.

C. E. P. inquires how to raise Achimenes. I have raised them three years, and had some fine specimens. I potted three corms in common potting soil, early in April, kept them quite moist and warm, giving plenty of bottom heat. They are slow in germinating, so don't grow impatient. The soil must never be allowed to get dry when well up. Keep the plants out of the direct rays of the sun and they will grow as well as any commoner plants. I keep them all summer on a well shaded veranda, and they bloom almost as freely as the gay Geraniums in the open border. I only have one color, blue, but should like a white one. The greatest difficulty is not in growing them, but in keeping the dry corms through the winter. I have always allowed them to remain in the pots, and kept them in a warm chamber. Last year they kept finely; this year I find several pots with many dead or dried out. I think they were allowed to become dust dry and so succumbed. Last winter I frequently gave the pots a gentle sprinkle from the watering pot. This kept them plump, and when time to start them they were healthy, and germinated more readily. They are odd little flowers; it is but little trouble to care for them, and they are well worthy of cultivation, and might easily be in every collection.

M. R. W., *Buffalo, Iowa.*

FLOWER ODORS IN CALIFORNIA.

In an article copied from VICK'S MAGAZINE into the *Church Union*, an eastern person that has evidently paid but a short visit to California utters the following: "The flowers that are fragrant in the East, such as Heliotrope, &c., in California have to be shaken to cause them to give out their odors." When I read this I was amazed, and wondered what part of our beautiful State the writer had visited. I have lived in California for twenty-five years, and can bear testimony otherwise. Flowers are brighter, sweeter and more abundant than in the East. Yesterday was May-day, and myself and family went with a party to the hills near us, and I am sure that even you would have been enthusiastic over the beautiful flowers we gathered. Your summers are so short that flowers cannot attain to such perfection as here, where

we seldom have frosts severe enough to kill Geraniums. The statement referred to caused a little indignation among our society of ladies, for its injustice, and we one and all determined that it should be denied by us. Can you sow Pansy seed in August and in November transplant and have them blooming all the year? We can.

MRS. N. B. K., *Vacaville, California.*

DAHLIA STEM-BORER.

Perhaps the readers of your excellent MAGAZINE will like to hear of my remedy for the streaked worms that bore holes in the stalks of the Dahlias; it is the flowers of sulphur. Take a quill or a straw and blow the sulphur in the hole, then stop the hole up with soil. Last summer, we had a beautiful *Amaranthus caudatus*, it was the largest one I ever saw. One of the worms went into the center stalk of this plant. I was trying everything I could think of to save it, when mother suggested sulphur; so, I tried it and saved the plant. I have never had a plant destroyed by the worms since. I have tried this remedy on Zinnias, Calendulas, Ricinus, Poppies and Corn, and it does not injure the plants in the least.

I do love to experiment and find out things about my flowers without asking about it, so I have been experimenting with these worms for the last five years.

Miss A. E. W., *Sturgis, Mich.*

A NEW ORNAMENTAL TREE.

The Japan Lilac, *Syringa Japonica*, has been raised from seed at the Harvard Arboretum, at Cambridge, Massachusetts. The seeds were planted in the spring of 1877, and some of the trees raised from them bloomed for the first time last summer. These trees have already attained a height of fifteen or sixteen feet, with a straight, clean stem covered with thin, smooth, light-colored red bark, similar to that of a thrifty young Cherry tree. The leaves are five or six inches in length, acuminate, wedge-shaped at the base, coriaceous. The flowers are small and white, and are borne in immense panicles, eighteen inches to two feet in length and three-fourths as broad. These panicles are borne in profusion and the flowers open during the first week in July and remain in bloom a long time.

The tree is considered perfectly hardy

here, and grows rapidly. What height it will attain is not certainly known. It promises to be a splendid ornamental tree for this country. The time of its blooming is later than that of most other trees and shrubs, and this feature gives it additional value.

POPPIES IN THE GARDEN.

For a mass of bright color in the garden there is nothing superior to the Poppy. Unfortunately the flowers are of short duration; there can be a succession of sowings in different places that will extend the time of their gay colors. The



PAPAVER UMBROSUM.

old single scarlet can be made to produce a brilliant effect for a short time when a little breadth of ground is sowed to it. An old poet, JOSEPH TAYLOR, wrote:

"When jocund summer leads her laughing hours,
And decks her zone with odorific flowers,
'Tis then thy charms attract the vulgar gaze,
And tempt the view with meretricious blaze;
Caught by thy glare, with pleasure they behold
Thy glowing crimson melting into gold."

Disclaiming the derogatory adjectives, we plead to this indictment.

The Perennial Oriental Poppy is even more brilliant, if possible, than the annual.

Illustrations are here presented of two

varieties of annual Poppies of unusual merit, both for massing and for their beauty when viewed individually. *Papaver umbrosum* has flowers of a bright vermilion color with a shining black spot at the base of each petal, which makes it very showy. The plant is of free growth and produces an abundance of flowers in succession, thus continuing for a considerable time.



DANE BROG POPPY.

Somewhat in contrast with this variety is the Danebrog Poppy, which is a brilliant scarlet with a silvery white blotch at the base of each petal, which greatly enhances the brilliancy of the color. The plants of this variety are a little taller in growth than the preceding, with equally as good a habit.

The Poppies should have a chance in the garden, and will produce splendid effects in the right place.

BEET SUGAR IN CALIFORNIA.

The manufacture of Beet sugar at Alvarado, California, is being greatly increased. It has proved financially successful, both to the manufacturers and the farmers who raise the Beets. The latter can net twenty dollars an acre profit in raising Sugar Beets. The climate there is such that the seed can be planted from March to May, inclusive, and harvesting goes on for five months, and the roots can be so easily and well kept that they can be worked up for four months after harvesting. The manufactory has now a capacity for working up eighty tons of Beets a day, and they are about to erect an additional factory capable of treating at least two hundred tons of Beets a day.

DAPHNE—LAUREL.

Through Tempe's charming valley, where the stream
Peneus, free,
Beneath Olympus' tow'ring heights, flows onward to
the sea,
Fresh as the early morning dawn, and fair as morn-
ing flowers,
Sweet Daphne, happy as a bird, passed her bright
childhood's hours.
Light hearted as the foamy waves, she climbed the
crag to greet
The first rays of the morning sun that kissed Olym-
pus' feet;
And when the sun-god's fiery steeds had traveled
through the sky,
She watched his chariot sink behind the western
mountain high.
O'er hill and dale, and mead she roved, light as the
breeze of spring,
And, jubilant as mating birds, she made the welkin
ring
With happy songs; while other maids all softly spoke
of love,
Sweet Daphne cared not heart of man—tho' many
wooed—to prove.

One morn, on Ossa's gentle slope, encircled by the
wood,
Before her wonder-widened eyes, a lovely being
stood;
The light of the new risen sun shone on his glorious
face;
She knew it was Apollo then, by his unrivalled
grace.
"Child of the morning, though thou fling love of all
men aside,"
He spake, in eager tones, "I've come to claim thee
for my bride,
For I have sought thee long and well, so will I make
thee mine,
And drink thy love, sweet Daphne, then, as Bacchus
drinks the wine."
But Daphne's heart was strong and bold, a flush
rose to her cheek,
And anger sparkled in her eye ere she found voice
to speak;
"I nothing know of bondage yet, and nothing know
of love;
But, free, desire among my hills in wild delight to
rove;
And, if I yield my freedom now, this were 'an evil
day,"

Then turned, and as on wings of wind, she swiftly
sped away;
O'er hill and dale and crag and glen, the feet of
Daphne fall
As lightly as the tinted leaves when autumn breezes
call.
But as Apollo nearer came her strength began to
fail,
She stretched her hands for help, her heart within
her seemed to quail,
Her head grew dizzy as she sped o'er Thessaly's
broad plains,
And by his labored breath she knows Apollo on her
gains.
Her robe was almost in his grasp; she nears the
river wild,
And with a piercing shriek, she cries, "Ye gods,
receive thy child!"
She plunges in—the rushing waves sweep madly on
their way,
And Daphne's eyes are ever closed upon the light of
day.

And she was gone—Apollo mourned his madness
and the hour
When his too eager hand was raised to crush this
winsome flower;
"My folly well is paid," he moaned, "gone is my
morning light;
Alone unto my journey's end I'll go in sorrow's
night;
But never from the hearts of men shall perish Daph-
ne's fame,
And ne'er for aye shall be forgot the winsome
Daphne's name."
He spake the word—a plant sprung up which ne'er
before was seen,
The Laurel, fair and beautiful, to keep her mem'ry
green.

Now, often as its glist'ning leaves appear in clusters
bright,
And often as its waxen blooms unfold their pink and
white,
So often does some tender heart sweet Daphne's
fate recall,
Whose heart, like these perfumes so sweet, no bond-
age could enthrall.

DART FAIRTHORNE.



OUR YOUNG PEOPLE.

MEUM ET TUUM.

IN TWO CHAPTERS.—I.

The Mërwins lived in a beautiful home—a costly home; but recently a shadow had fallen upon it which had affected the happiness of its inmates.

Said Mrs. Merwin to her children, one evening: "What have I taught you in the past concerning odds and ends of other people's property that have come into your possession through carelessness or loss? Each of you tell me what you can recall of such lessons."

Young George spoke first: "I remember that, after losing several knives, you said I must do without any until I could learn to be more careful, and that just then I found one on the street and was very happy over it, until you said it was not mine at all, but belonged to the loser just as much as when it was in his pocket, and that I must make every effort to find the owner. Then I got cross, I remember, and said, 'Nobody brings back the knives I lose,' and you grew awfully sober, and said, 'Perhaps your knives were lost where nobody finds them—you don't know.' Then you made me look straight in your eyes, and said, 'George, are you going to do what you think other people do, or are you going to do what is *right*?' Then I saw your tears coming, and I said, 'Mamma, I'll do what is right,' and you asked, '*always*?' and I promised, '*always*.'"

"And I remember," said Lucy, "that I was always forgetting to return the story books I borrowed, until you forbade me getting any more, not excusing me on the plea that my own books were often kept until I had to ask for them. And once, when a borrowed book got injured in some way, you made me buy a new one out of my allowance money, which kept me short for two months, and taught me to take care of other people's books. And once, after a picnic, you found in our basket somebody's table-cloth and some goblets, and George said, very dolefully, 'Now the folks don't know where their things are,' and you quickly

replied, 'But *we* know where they are, don't we, George? and we'll soon find out where they belong.' Ever since that time, when I come across stray articles at school or church, or here at home, left by visitors or others, I instantly recall your remark that day, 'But *we* know where they are.'"

Then Victor, next older, said: "I remember very distinctly having had a sharp lesson in borrowing. You were away from home, mamma, and I thought because a neighbor had borrowed our step-ladder that I could very properly borrow their whitewash brush to whiten my new rabbit-hutch inside and out, and that even you would approve of that. But instead, you soon convinced me that if borrowing is to be indulged in as a neighborly convenience that distinctions are to be made, for I had nearly worn out a two dollar brush on the rough boards of the hutch, while the step-ladder was, of course, as good as ever. So I had to give a dollar toward a new brush, and it took all my next month's allowance, so that I could not get you the birthday present I had intended. And then it was that you and papa made a rule that we children were to make you no more birthday gifts, but were to remember the day by joining together and giving you a pleasant surprise by the recitation of pieces or dialogues, or by reading short essays of our own on some subject. I remember you said that you got this idea from reading of Prince Albert's domestic arrangements, and that what was good enough for Queen Victoria's children to do on such anniversaries was good enough for us and for you."

Then Agnes, laughing, declared that, being the eldest of the four, she had had the benefit of all their experiences added to her own, and felt herself thoroughly drilled in discriminating between "*meum et tuum*,"—that, in fact, she had once been required to write an essay with that

for the text, which proved a great trial, but brought some praise in the end.

"Yes, but you have to tell us something that happened to you," said George, because the rest of us did."

"Well, then, I remember realizing once how very easy it may happen to be for people to be dishonest when the opportunity is thrust upon them. I had been sent to buy four napkins for a luncheon basket, and the merchant himself waited on me. Opening the stiff folds, he said, 'There are but five of them, so I'll just throw in the fifth one.' When the package was opened at home it was found that the napkins were in double-fold lengthwise, making ten in all, while I had paid for but four. I was sent directly back with the six that were not paid for, having been charged to go to the merchant himself with the package, as it was 'not necessary that the clerks should know of his mistake,' mamma said."

"Any way," cried George, you didn't have to take back but five, for he had *given* you the fifth one."

"Be careful, George," said his mother. "Lucy, what do you think about it?"

"I think that all six ought to have been returned, making an even half dozen for somebody to buy. Nobody buys just one napkin, and so the merchant hadn't cared to keep the fifth one when he thought that was all there was left."

"My darling, I am thankful for your clear sense of right," said Mrs. Merwin. "Now we will consider a larger and more serious subject in this same light of what is right. You all know that your papa has recently made an assignment of his business and real estate to his creditors. But this home having been deeded to me years ago, I can still keep. But the indebtedness cannot be all cancelled without turning in this property also. Perhaps not more than one of the creditors lives in so expensive a house as this, while some of them have lived plainly all their lives, and cannot afford to lose any of their hard earned gains. Now, my children, what have you to say about our keeping this home?"

After a silence, Victor asked, "What does papa say?"

"He says I am to do as I think best; but I must know how my children feel about it." Lucy spoke first:

"If other people and their children

can't have all that belongs to them because we children are living in such a fine house, then we have no right to it." And Agnes added:

"What right have we to go on living in a style to correspond with such a house? Look at the servants it takes now to keep things going."

George's neck was on the stretch surveying the walls and ceilings, as though trying to realize how it would seem to have to say good-bye to them. Directly he asked what they would do for a home if they left that house, now that his papa had given up the houses he used to rent out.

"We'd do," replied his mother, "as other people do who own no property. There are always comfortable houses to be rented."

"Then my pony and the carriage horses will have to go," continued George.

"And my piano," chimed in Agnes.

"Perhaps not, Agnes," said her mother, "Pianos don't eat anything, neither do books, so we can keep that and our library. I have thought it all over. But, Victor, my boy, my oldest son, you say nothing to indicate how you feel on the subject."

"I feel so much it's hard to talk about it," responded Victor. "I just hate this house already—I can't bear to stay in it another day, while people are living in cheaper homes who know now that papa can't pay all that he owes them. I couldn't look a boy in the face who knows us, nor his father, either, if papa were owing them and we still lived in this great house."

"That's just the way I feel," said Lucy, "but I couldn't say it so well." Then Agnes added:

"Victor has spoken for us all, I think, mamma."

Tears of thankfulness sprang to the eyes of Mrs. Merwin as she now realized that this severe test to which she had put her children proved that her careful training had not been in vain.

"Well, then, if we are all united," she said, "I shall know just how to act in the matter. Papa is sufficiently prepared, so we need say nothing to him of our talk, this evening."

The next day young George Merwin was sent to the place where his father's

creditors were holding a meeting, and with firm step and head erect, handed in a note, which read thus :

To my Husband's Creditors :

Myself and children are united in wishing to turn in our home estate toward the settlement of Mr. Merwin's indebtedness. I only ask that the property be not so sacrificed by forced sale, or otherwise, as to defeat the very object for which it is given up.

MELINDA MERWIN.

The Chairman of the meeting immediately read the note aloud, and for a moment an utter silence followed ; then, being a warm hearted, impulsive man, he said, "Bring that boy back!"

When George again stood before him, he inquired: "Do you know what is in this note?"

"Yes, sir, I do."

Then what made you look so smiling, and step so proud when you came in?"

"I didn't mean to walk proud, sir, but I was *glad*, because mamma thinks if that house is sold it will finish paying off papa's debts. And I thought papa would feel proud when he heard the note read, for he didn't know for sure that mamma was going to do it, and that made me glad, too."

"One round for George Merwin and his mother!" exclaimed the enthusiastic Chairman, and up went a cheer which tingled Georgie to his toes.

Mrs. Merwin had no thought of making a sensation—had only considered the discipline of it all for her children; and so, when George made his report to her, she flushed with feeling, but quickly remarked, "People don't need to be cheered for simply doing what is right."

"But I liked it, anyway," George answered.

MARIA BARRETT BUTLER.

LITTLE GAUZE WINGS.

Flies! who does not think of them as only tormenting little creatures, always buzzing about in the most annoying sort of way, and often tantalizing to the last degree, for as certainly as one may brush the insect away, just as surely will it return to the very same place, with such persistence that one feels almost in frantic despair at ever getting rid of it. At such a time one can scarcely give a thought as to whether it has the slightest beauty, and yet it is a most daintily formed little creature, this common house-fly, with which every one is familiar. It is a wonderfully beautiful object to examine through the microscope; the legs and feet so slight that it seems as if a touch must surely break such frail things, and still there is wonderful power in these same small feet, for the fly can as easily walk on the ceiling over our heads as he can on the table before us, and this power he derives from the suckers with which his feet are provided, and at the same time a fluid exudes from the suckers, which causes such great adhesion that even on the most highly polished surface the fly can remain in a reversed position for a long time. The hard covering of the body of an insect consists of three layers, and the membrane of the wings is a filmy expansion of the outer one, or epidermis. The ribs

or veins of the wings are tubes through which air is conveyed. The wings are thinner in appearance than gauze, and the fine delicate veins or fibers seem scarcely covered, except when the light falls upon them and causes them to flash with brilliant prismatic colors, green, crimson and purple, till they seem truly like beautiful gems.

The head of the insect is large and of the softest jet black, and in the mouth is a wonderfully constructed little tongue, somewhat like that of the butterfly. Flies are very particular about keeping their coats carefully brushed and their wings polished till they are of dazzling brightness, and many a time they may be seen busily and briskly rubbing with their feet, as these serve the purpose of a brush, first one, then another part of their small bodies which they thus put in order.

Flies are very fond of sweets, as every one knows, and are thereby attracted from every direction. Quassia is very fatal to them, and is safer to use for their destruction than almost any thing else.

Flies exist in all parts of the world, and there are many species, some of which serve for medical purposes, such as cantharides, or Spanish fly, and there are many which are only destructive and tormenting. Perhaps, since we have stopped for



a moment to think of the beauties of these small creatures and consider how exquisite and wonderful is the mechanism of each minute part which has been formed by the Creator of the universe, we shall not look so slightly upon these tiny insects, and it may help us to feel less impatient with their teasing ways.

M. E. WHITEMORE.

EDITOR'S MISCELLANY.

THE PLUM CURCULIO.

We have been favored with a copy of the Fifteenth Annual Report of the Entomological Society of Ontario, of which William Saunders, the well known author of a practical work on insects injurious to fruits, is a leading member, and at present the head of the society. From its well filled pages we take, for the benefit of our readers, the following extract: "From the evidence thus far obtained it would appear that the remedy which has been found so efficacious in subduing the codlin moth of the Apple, namely, Paris green and water, in the proportion of a teaspoonful of the poison to a pailful of water, will also protect the Plum crop from the ravages of curculio. This remedy should be extensively tried by thoroughly syringing the trees with it as soon as the fruit has set, and repeating the application in a few

days should rain occur to wash it off. Should this remedy prove universally successful a great stimulus will be given to Plum culture."

NURSERYMEN AND SEEDSMEN'S ASSOCIATION.

The American Association of Nurserymen, Seedsmen and Florists will hold their annual meeting, this year, at Washington, D. C., commencing June 16th, and continuing three days. This meeting will probably be one of unusual interest, both from business and social points of view, and also on account of its location at the seat of government. Full information in regard to hotel accommodations, railroad fares, and the general features of the meeting can be obtained from the Secretary, D. Wilson Scott, of Galena, Illinois. This gathering is one that horticulturists very generally should observe.